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TO: Bill Berger  
TO: Eleana Edens  
TO: Tom McCloy  
Subject: Congressional Q and A

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Here is my input: 3 research products from fy 98

Product:  
Advanced Crew resource Management Training system

Customers: FAA Flight Standards Air Carrier Training and FAA Advanced Qualification Office. Domestic and Foreign Carriers. Maritime industry.

Agency outputs; This training system is the result of three years of research with a major and a regional air carrier to improve human factors on the flight deck. This research addressed proceduralizing areas of cockpit performance to enhance operational safety. While technical tasks have used procedures abundantly, the human factors area of flight performance has not. Prior to this research most cognitive tasks such as situational awareness, decision making and communication were left to the crew's discretion as to how to implement such tasks. This approach has not been totally satisfactory. This research proceduralized the most critical cognitive tasks in the most critical phases of flight. This approach proved to improved crew effectiveness both in simulator training and in line operations. Additionally, this project resulted in improved methods for instructor training and assessment of human factors on the flight deck. The training system has been widely distributed both nationally and internationally. This office has been contacted by the maritime industry to investigate implementing this system in those operations.

2. Prototype Rapidly Reconfigurable Event Sets. This project provides air carriers with methods and software to develop training scenarios from approved events sets, (flight segments). This project saves resources for the carriers but most importantly for the FAA this product allows the carriers to develop unique assessment and evaluation scenarios for each crew. Currently, most carriers have a very limited set of scenarios for each training cycle. The cost of developing a new scenario for each crew is prohibited. Training validity may be compromised because of this.

FAA customers: Certificate management offices, flight standards at headquarters and the Advanced Qualification Office.

Output: This project is being conducted with two major carriers and has provided the prototype system. Completion expected FY 2000.

3. Instructor Evaluator Calibration Training. This project has developed methods and software to allow air carriers to train and calibrate instructors using computer technology. This is a significant advance in training methodology for the carriers and the FAA. It allows the carriers to train and calibrate one instructor

rather than having to bring together a large group of instructors. This allows the FAA oversight offices to determine the level of standardization in each fleet and across fleets in a particular carrier.

This product is fully operational at one major carrier and will be distributed to the entire industry FY 99.